

Having described the invention, we claim:

1. A system for estimating the utilization of an electromagnetic signal receiver, said system comprising:
  - a detection module for receiving electromagnetic signals from a surrounding environment, the electromagnetic signals being chronologically segregated into a plurality of dwells each with an elapsed time;
  - a processing module for controlling the scanning of the surrounding environment, said processing module computing a plurality of a utilizations by dividing each individual elapsed time by a predetermined sample interval, said processing module receiving data about the signals from said detection module,
  - said processing module further determining a total utilization by adding the plurality of utilizations.

2. The system as set forth in claim 1 wherein said processing module further multiplies each individual utilization by an individual predetermined weight corresponding to each of said plurality of utilizations prior to the determination of the total utilization.

3. The system as set forth in claim 1 wherein said processing module issues a command to said detection module for changing the frequency the signals that said detection module scans.

4. A computer program product for estimating the utilization of an electromagnetic signal receiver, said product comprising:

    a first instruction for receiving electromagnetic signals from a surrounding environment;

    a second instruction for creating data from the electromagnetic signals;

    a third instruction for chronologically segregating the electromagnetic signals into a plurality of dwells each with an elapsed time;

    a fourth instruction for controlling the scanning of the surrounding environment;

    a fifth instruction for computing a plurality of a utilizations by dividing each individual elapsed time by a predetermined sample interval; and

    a sixth instruction for determining a total utilization by adding the plurality of utilizations.

5. The computer program product as set forth in claim 4 further comprising an instruction for declaring a utilization array that is N elements long.

6. The computer program product as set forth in claim 5 further comprising an instruction for initializing the value of each of the N elements in the utilization array to 1.0.

7. The computer program product as set forth in claim 4 further comprising an instruction for determining a maximum dwell/revisit time value of the plurality of dwells.

8. The computer program product as set forth in claim 4 further comprising an instruction for creating an assessment dwell having a revisit time value of the predetermined sample interval.

9. The computer program product as set forth in claim 4 further comprising an instruction for determining an elapsed time by subtracting a start time from a clock time.

10. The computer program product as set forth in claim 4 further comprising an instruction for reporting the total utilization to a computer display.

11. The computer program product as set forth in claim 4 further comprising an instruction for conducting further processing of data obtained from said fifth and sixth instruction.

12. The computer program product as set forth in claim 4 further comprising an instruction for updating a utilization array by discarding the oldest element in the utilization array.

13. The computer program product as set forth in claim 12 further comprising an instruction for updating the utilization array by appending the newest element in the utilization array.

14. The computer program product as set forth in claim 4 wherein said fourth instruction includes the issuing of commands to a receiver for varying the frequency of the electromagnetic signals received from the surrounding environment.

15. A method for estimating the utilization of an electromagnetic signal receiver, said method comprising the steps of:

receiving electromagnetic signals from a surrounding environment;

creating data from the electromagnetic signals; chronologically segregating the electromagnetic signals into a plurality of dwells each with an elapsed time;

controlling the scanning of the surrounding environment;

computing a plurality of a utilizations by dividing each individual elapsed time by a predetermined sample interval; and

determining a total utilization by adding the plurality of utilizations.

16. The method as set forth in claim 15 further comprising the step of declaring a utilization array that is N elements long and the step of initializing the value of each of the N elements in the utilization array to 1.0.

17. The method as set forth in claim 15 further comprising the step of determining a maximum dwell/revisit time value of the plurality of dwells.

18. The method as set forth in claim 15 further comprising the step of creating an assessment dwell having a revisit time value of the predetermined sample interval.

19. The method as set forth in claim 15 further comprising the step of determining each elapsed time by subtracting a temporarily fixed start time from a clock time.

20. The method as set forth in claim 15 further comprising the step of reporting the total utilization to a computer display and the step of conducting further processing of data obtained from said method.